

ABSTRACT

In this study, soil samples were collected from the rhizosphere of wheat, rice and maize crops from different localities of Hafizabad and Lahore districts i.e., Raiwind Road and Nasir Bagh, Jinnah Bagh, Botanical garden GCU, Lahore and some areas of Hafizabad, Pakistan. Filamentous fungi were isolated by culturing method including direct plate method and indirect plate method on PDA medium. In this study, forty-five fungal taxa were isolated, described, illustrated and identified on the basis of morphological, anatomical and some on the basis of molecular characters. These forty-five isolated filamentous fungal species belong to twenty-one genera of three divisions (Zygomycota, Ascomycota, Basidiomycota). In this investigation, one taxon *Aspergillus ostiantus* nom. prov. seems new to science, one genus *Blastomyces* is new report and ten taxa (*Blastomyces dermatitidis*, *B. lobo*, *Botryosporium longibrachiatum*, *Chrysosporium zonatum*, *Lecanicillium acerosum*, *Lecanicillium aphanocladii*, *L. dimorphum*, *Paracoccidioides brasiliensis*, *Penicillium verrucosum*, *Tilletiopsis cremea*) are first time reported from Pakistan. All the isolated filamentous fungal taxa are first time reported from rhizosphere of wheat and maize crops in Pakistan. Colony morphology, detailed macro and microscopic descriptions, illustrations and light micrographs of microscopic features of all taxa are also provided.